

Patent Abstracts of Japan

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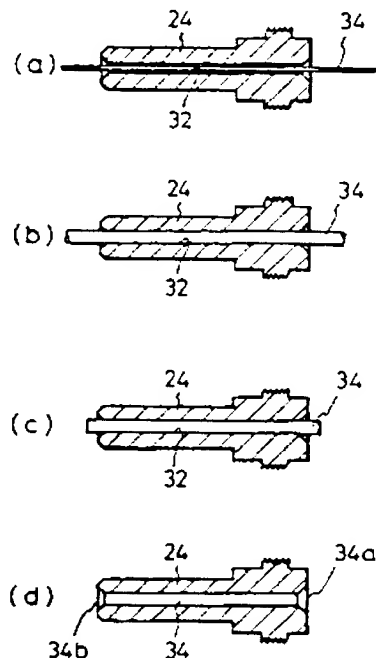
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TITLE : LIGHT FIXING ATTENUATOR



ABSTRACT : PURPOSE: To fix a light attenuating quantity of the title attenuator by inserting a plastic optical fiber having a diameter smaller than the inside diameter of a ferrule, with the inside diameter being decided to be smaller than the diameter of the optical fiber of a main line in accordance with the light attenuating quantity, into the ferrule and heating them.

CONSTITUTION: The plastic optical fiber 34 having a diameter which is smaller than the inside diameter of the ferrule 24 which is decided in accordance with the light attenuating quantity and a length which is sufficiently longer than that of the ferrule 24 is inserted into a through hole 32 formed in the ferrule 24 and they are heated. It is necessary to make the heating temperature higher than the transition temperature of the glass which is the material constituting the plastic optical fiber. During the course of the heating process, the plastic optical fiber contracts in its length direction and its diameter increases until it becomes coincident with the inside diameter of the ferrule 24. Therefore, when the inside diameter of the ferrule is previously decided in accordance with the light attenuating quantity, a prescribed light attenuating quantity can be obtained irrespectively of the diameter of the thin-diameter optical fiber. Accordingly, a fixed attenuation factor can be obtained irrespectively of the distribution pattern of the light made incident on this attenuator.

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